Scatterplots- Practice NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

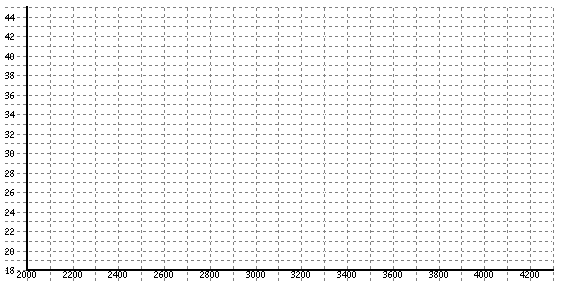
**For a small group of 16 car models, the following table lists the weight of the car (in pounds) and the fuel efficiency (in miles-per gallon) achieved in a 150-mile test drive.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Model** | **Weight** | **MPG** | **Model** | **Weight** | **MPG** |
| BMW 3-Series | 3250 | 28 | Ford Probe | 2900 | 28 |
| BMW 5-Series | 3675 | 23 | Ford Taurus | 3345 | 25 |
| Eldorado | 3840 | 19 | Taurus SHO | 3545 | 24 |
| Seville | 3935 | 20 | Accord | 3050 | 31 |
| Aspire | 2140 | 43 | Civic | 2540 | 34 |
| Crown Victoria | 4010 | 22 | Civic del Sol | 2410 | 36 |
| Escort | 2565 | 34 | Prelude | 2865 | 30 |
| Mustang | 3450 | 22 | Mark VII | 3810 | 22 |

1. Determine the explanatory and response variables. Write them below:

Explanatory = Response =

1. Create a scatterplot of the data on the plot to the left. Label your axes carefully.



1. Describe the plot: list the form, direction, and strength. Also note if there are any outliers.
2. Use the plot above to help answer the following: If a car has a weight of 3200 lbs, what would you estimate the MPG would be for that car? EXPLAIN HOW YOU ARRIVED AT YOUR ANSWER!!

**The following data comes from a sample of statistics students. Create a scatterplot with Arm Span as the Explanatory and Height as the Response Variables. *Use a different symbol or color for Males and Females***

**MALES: FEMALES:**

|  |  |
| --- | --- |
| **Height** | **Arm Span** |
| 65 | 67 |
| 64 | 64 |
| 63 | 64 |
| 62 | 63 |
| 68 | 67 |
| 69 | 67 |
| 57 | 58 |
| 58 | 57 |
| 69 | 70 |
| 68 | 70 |
| 67 | 66 |

|  |  |
| --- | --- |
| **Height** | **Arm Span** |
| 66 | 68 |
| 67 | 66 |
| 60 | 61 |
| 68 | 68 |
| 68 | 67 |
| 69 | 71 |
| 71 | 67 |
| 74 | 71 |
| 59 | 61 |
| 60 | 61 |
| 72 | 71 |



1. Describe the plot: list the form, direction, and strength. Also note if there are any outliers.
2. What do you notice about the general differences between males and females in the plot?